RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/753,143

DATE: 12/20/2001
TIME: 12:41:26

Input Set : N:\Crf3\RULE60\09753143.txt
Output Set: N:\CRF3\12202001\I753143.raw

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: NATHAN A. ELLIS, JAMES GERMAN, AND JOANNA GRODEN

(ii) TITLE OF INVENTION: METHODS FOR DIAGNOSIS AND TREATMENT OF BLOOM'S SYNDROME

(iii) NUMBER OF SEQUENCES: 78

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: AMSTER, ROTHSTEIN & EBENSTEIN

(B) STREET: 90 PARK AVENUE

(C) CITY: NEW YORK

(D) STATE: NEW YORK

(E) COUNTRY: U.S.A.

(F) ZIP: 10016

ENTERED

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: 3.5 INCH 1.44 Mb STORAGE DISKETTE

(B) COMPUTER: IBM PC COMPATIBLE

(C) OPERATING SYSTEM: MS-DOS

(D) SOFTWARE: ASCII

(vi) CURRENT APPLICATION DATA:

C--> **(A) APPLICATION NUMBER: US/09/753,143**

C--> **(B) FILING DATE: 02-Jan-2001**

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 09/175,828

(B) FILING DATE: 1998-10-20

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: ELIZABETH A. BOGOSIAN

(B) REGISTRATION NUMBER: 39,911

(C) REFERENCE/DOCKET NUMBER: 63475/65

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (212) 697-5995

(B) TELEFAX: (212) 286-0854 or 286-0082

(C) TELEX: TWX 710-581-4766

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19

(B) TYPE: NUCLEIC ACID

(C) STRANDEDNESS: SINGLE

(D) TOPOLOGY: LINEAR

W--> **(ii) MOLECULE TYPE:**

(A) DESCRIPTION: OTHER NUCLEIC ACID

(iii) HYPOTHETICAL: YES

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

GGTGGCGACG ACTCCTGGA 19

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

RAW SEQUENCE LISTING DATE: 12/20/2001
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Input Set : N:\Crf3\RULE60\09753143.txt
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      68           (A) LENGTH: 19
      69           (B) TYPE: NUCLEIC ACID
      70           (C) STRANDEDNESS: SINGLE
      71           (D) TOPOLOGY: LINEAR
W--> 73      (ii) MOLECULE TYPE:
      74           (A) DESCRIPTION: OTHER NUCLEIC ACID
      76     (iii) HYPOTHETICAL: YES
      78      (iv) ANTI-SENSE: NO
      80      (ix) FEATURE:
      81           (A) NAME/KEY:
      82           (B) LOCATION:
      83           (C) IDENTIFICATION METHOD:
      84           (D) OTHER INFORMATION:
      86      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
      88       ACCAGACCAA CTGGTAATG     19
      91 (2) INFORMATION FOR SEQ ID NO: 3:
      93       (i) SEQUENCE CHARACTERISTICS:
      94           (A) LENGTH: 20
      95           (B) TYPE: NUCLEIC ACID
      96           (C) STRANDEDNESS: SINGLE
      97           (D) TOPOLOGY: LINEAR
W--> 99      (ii) MOLECULE TYPE:
     100           (A) DESCRIPTION: OTHER NUCLEIC ACID
     102     (iii) HYPOTHETICAL: YES
     104      (iv) ANTI-SENSE: NO
     106      (ix) FEATURE:
     107           (A) NAME/KEY:
     108           (B) LOCATION:
     109           (C) IDENTIFICATION METHOD:
     110           (D) OTHER INFORMATION:
     112      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
     114       ATGGTAGCGA CCGGCGCTCA    20
     117 (2) INFORMATION FOR SEQ ID NO: 4:
     119       (i) SEQUENCE CHARACTERISTICS:
     120           (A) LENGTH: 20
     121           (B) TYPE: NUCLEIC ACID
     122           (C) STRANDEDNESS: SINGLE
     123           (D) TOPOLOGY: LINEAR
W--> 125     (ii) MOLECULE TYPE:
     126           (A) DESCRIPTION: OTHER NUCLEIC ACID
     128     (iii) HYPOTHETICAL: YES
     130      (iv) ANTI-SENSE: NO
     132      (ix) FEATURE:
     133           (A) NAME/KEY:
     134           (B) LOCATION:
     135           (C) IDENTIFICATION METHOD:
     136           (D) OTHER INFORMATION:
     138      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
     140       CCGTCAGTAT CGGCGGAATT    20
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PATENT APPLICATION: US/09/753,143

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Input Set : N:\Crf3\RULE60\09753143.txt
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```
      (2) INFORMATION FOR SEQ ID NO: 5:
           (i) SEQUENCE CHARACTERISTICS:
                (A) LENGTH: 21
                (B) TYPE: NUCLEIC ACID
                (C) STRANDEDNESS: SINGLE
                (D) TOPOLOGY: LINEAR
W-->       (ii) MOLECULE TYPE:
                (A) DESCRIPTION: OTHER NUCLEIC ACID
          (iii) HYPOTHETICAL: YES
           (iv) ANTI-SENSE: NO
           (ix) FEATURE:
                (A) NAME/KEY:
                (B) LOCATION:
                (C) IDENTIFICATION METHOD:
                (D) OTHER INFORMATION:
           (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
            TTGTGGTGTT GGGTAGAGGT T  21
      (2) INFORMATION FOR SEQ ID NO: 6:
           (i) SEQUENCE CHARACTERISTICS:
                (A) LENGTH: 15
                (B) TYPE: NUCLEIC ACID
                (C) STRANDEDNESS: SINGLE
                (D) TOPOLOGY: LINEAR
W-->       (ii) MOLECULE TYPE:
                (A) DESCRIPTION: OTHER NUCLEIC ACID
          (iii) HYPOTHETICAL: YES
           (iv) ANTI-SENSE: NO
           (ix) FEATURE:
                (A) NAME/KEY:
                (B) LOCATION:
                (C) IDENTIFICATION METHOD:
                (D) OTHER INFORMATION:
           (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
            GCCGCCGGCA CCAAC    15
      (2) INFORMATION FOR SEQ ID NO: 7:
           (i) SEQUENCE CHARACTERISTICS:
                (A) LENGTH: 22
                (B) TYPE: NUCLEIC ACID
                (C) STRANDEDNESS: SINGLE
                (D) TOPOLOGY: LINEAR
W-->       (ii) MOLECULE TYPE:
                (A) DESCRIPTION: OTHER NUCLEIC ACID
          (iii) HYPOTHETICAL: YES
           (iv) ANTI-SENSE: NO
           (ix) FEATURE:
                (A) NAME/KEY:
                (B) LOCATION:
                (C) IDENTIFICATION METHOD:
                (D) OTHER INFORMATION:
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/753,143

DATE: 12/20/2001
TIME: 12:41:26

Input Set : N:\Crf3\RULE60\09753143.txt
Output Set: N:\CRF3\12202001\I753143.raw

```
      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
       CCTCAGTCAA ATCTATNTGC TC      22
(2) INFORMATION FOR SEQ ID NO: 8:
       (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 23
            (B) TYPE: NUCLEIC ACID
            (C) STRANDEDNESS: SINGLE
            (D) TOPOLOGY: LINEAR
W--> (ii) MOLECULE TYPE:
            (A) DESCRIPTION: OTHER NUCLEIC ACID
     (iii) HYPOTHETICAL: YES
      (iv) ANTI-SENSE: NO
      (ix) FEATURE:
            (A) NAME/KEY:
            (B) LOCATION:
            (C) IDENTIFICATION METHOD:
            (D) OTHER INFORMATION:
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
       GCCATCACCG GAACAGAAGG AAA      23
(2) INFORMATION FOR SEQ ID NO: 9:
       (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 22
            (B) TYPE: NUCLEIC ACID
            (C) STRANDEDNESS: SINGLE
            (D) TOPOLOGY: LINEAR
W--> (ii) MOLECULE TYPE:
            (A) DESCRIPTION: OTHER NUCLEIC ACID
     (iii) HYPOTHETICAL: YES
      (iv) ANTI-SENSE: NO
      (ix) FEATURE:
            (A) NAME/KEY:
            (B) LOCATION:
            (C) IDENTIFICATION METHOD:
            (D) OTHER INFORMATION:
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
       TCTTCTGGAG GAGGTGGAAC AA      22
(2) INFORMATION FOR SEQ ID NO: 10:
       (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 19
            (B) TYPE: NUCLEIC ACID
            (C) STRANDEDNESS: SINGLE
            (D) TOPOLOGY: LINEAR
W--> (ii) MOLECULE TYPE:
            (A) DESCRIPTION: OTHER NUCLEIC ACID
     (iii) HYPOTHETICAL: YES
      (iv) ANTI-SENSE: NO
      (ix) FEATURE:
            (A) NAME/KEY:
            (B) LOCATION:
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/753,143

DATE: 12/20/2001
TIME: 12:41:26

Input Set : N:\Crf3\RULE60\09753143.txt
Output Set: N:\CRF3\12202001\I753143.raw

```
      (C) IDENTIFICATION METHOD:
      (D) OTHER INFORMATION:
   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
    GGATCCTGGT TCCGTCCGC     19
(2) INFORMATION FOR SEQ ID NO: 11:
    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 21
      (B) TYPE: NUCLEIC ACID
      (C) STRANDEDNESS: SINGLE
      (D) TOPOLOGY: LINEAR
W--> (ii) MOLECULE TYPE:
      (A) DESCRIPTION: OTHER NUCLEIC ACID
  (iii) HYPOTHETICAL: YES
   (iv) ANTI-SENSE: NO
    (ix) FEATURE:
      (A) NAME/KEY:
      (B) LOCATION:
      (C) IDENTIFICATION METHOD:
      (D) OTHER INFORMATION:
   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
    CAACTAGAAC GTCACTCAGC C       21
(2) INFORMATION FOR SEQ ID NO: 12:
    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 22
      (B) TYPE: NUCLEIC ACID
      (C) STRANDEDNESS: SINGLE
      (D) TOPOLOGY: LINEAR
W--> (ii) MOLECULE TYPE:
      (A) DESCRIPTION: OTHER NUCLEIC ACID
  (iii) HYPOTHETICAL: YES
   (iv) ANTI-SENSE: NO
    (ix) FEATURE:
      (A) NAME/KEY:
      (B) LOCATION:
      (C) IDENTIFICATION METHOD:
      (D) OTHER INFORMATION:
   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
    GACTTTTCCT TCAGTGAACC TC      22
(2) INFORMATION FOR SEQ ID NO: 13:
    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 21
      (B) TYPE: NUCLEIC ACID
      (C) STRANDEDNESS: SINGLE
      (D) TOPOLOGY: LINEAR
W--> (ii) MOLECULE TYPE:
      (A) DESCRIPTION: OTHER NUCLEIC ACID
  (iii) HYPOTHETICAL: YES
   (iv) ANTI-SENSE: NO
    (ix) FEATURE:
```

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/753,143

DATE: 12/20/2001
TIME: 12:41:27

Input Set : N:\Crf3\RULE60\09753143.txt
Output Set: N:\CRF3\12202001\I753143.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:53 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1
L:73 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=2
L:99 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=3
L:125 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=4
L:151 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=5
L:177 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=6
L:203 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=7
L:229 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=8
L:255 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=9
L:281 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=10
L:307 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=11
L:333 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=12
L:359 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=13
L:385 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=14
L:412 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=15
L:439 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=16
L:465 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=17
L:490 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=18
L:515 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=19
L:540 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=20
L:566 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=21
L:591 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=22
L:617 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=23
L:643 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=24
L:670 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=25
L:695 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=26
L:721 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=27
L:747 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=28
L:773 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=29
L:799 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=30
L:825 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=31
L:851 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=32
L:877 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=33
L:903 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=34
L:929 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=35
L:955 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=36
L:981 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=37
L:1008 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=38
L:1034 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=39
L:1060 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=40
L:1086 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=41
L:1112 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=42
L:1138 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=43
L:1164 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=44
L:1190 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=45
L:1216 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=46

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Input Set : N:\Crf3\RULE60\09753143.txt
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L:1242 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=47
L:1268 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=48
L:1294 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=49
L:1320 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=50